IN THE CLAIMS:

1. (Previously Presented) A machining machine for lenses comprising: first and second workpiece drives configured as transport receptacles, each having a workpiece spindle; a workpiece changer for exchanging workpieces between the workpiece drives and a workpiece stock; and a machining station for machining a workpiece, wherein:

a) the workpiece spindle of the first workpiece drive rotates about an axis of rotation (c1),

b) the first workpiece drive swivels about a first swivel axis (b1) arranged at a right angle to the axis of rotation (c1) and

c) the first workpiece drive turns about a turning axis (k) arranged at a right angle to the first swivel axis (b1),

d) the second workpiece drive spindle which turns about an axis of rotation (c2),

e) the second workpiece drive swivels about a second swivel axis (b2) arranged at a right angle to the axis of rotation (c2), and

f) both workpiece drives can turn together about the turning axis (k).

2. (Currently Amended) The device according to Claim 1, wherein the workpiece drives have a common translatory lifting axis (w), arranged in parallel with the ~~swivel~~ turning axis (k), being mounted and driven to move along the lifting axis (w).

3. (Previously Presented) The device per Claim 1, wherein two workpiece changers are provided and each of the workpiece changers can swivel about a swivel axis (s) arranged at right angles to a lifting axis (w) of the workpiece drives between a position W1 beneath the workpiece drive and at least one position W2 above the workpiece stock and is driven in translatory motion in the direction of a lowering axis (n1, n2) arranged in parallel with the lifting axis (w).

4. (Previously Presented) The device according to Claim 1, wherein the workpiece can be transported by the workpiece changer between a position beneath the

workpiece drive and a position above the workpiece stock and can be swiveled through 180° in this process.

5. (Previously Presented) The device according to Claim 1, wherein the machining station is configured as a polishing station and has at least two polishing plates, each of which are driven and guided to turn about a polishing axis (p1, p2) and move in the direction of a translatory telescopic axis (z1, z2), arranged in parallel with the polishing axis (p1, p2).

6. (Previously Presented) The device according to Claim 5, wherein the respective polishing plate has an air-cushioned telescopic drive, able to turn about the polishing axis (p1, p2) and move in the direction of the telescopic axis (z1, z2), while the polishing plate is connected via a bellows and a universal joint to the polishing axis (p1, p2).

7. (Previously Presented) The device according to Claim 6, wherein the telescopic drives of the polishing plates have a common motor and are connected to it via a traction means, such as a poly-V-belt.

8. (Previously Presented) The device according to Claim 5, wherein the polishing plates are each coordinated with a tool changer or a common tool changer, having at least one tool magazine for polishing tools.

9. (Previously Presented) The device according to Claim 8, wherein the tool changer is driven and can move in the direction of a translatory transport axis (t1, t2) and in the direction of a translatory exchange axis (a1, a2), arranged at right angles to translatory transport axis (t1, t2).

10. (Previously Presented) The device according to Claim 8, wherein the tool magazine is configured as a revolving drum, and the drum is coordinated with a liquid

container, by which at least a part of the tool can be wetted with liquid by the turning of the drum.

11. (Previously Presented) The device according to Claim 10, wherein the tool magazine has a quick locking element for securing in a relative position along the particular drum turning axis and a securing element determining the relative position within the machine.

12. (Previously Presented) The device according to Claim 1, wherein a washing station is provided with at least two washing places, which can be brought into a position S underneath the workpiece drive.

13. (Previously Presented) The device according to Claim 12, wherein the washing station can move in translatory motion in the direction of a lifting axis (h).

14. (Previously Presented) The device according to Claim 1, wherein the workpiece spindles are connected to respective swivel motors having the first swivel axis (b1, b2), wherein the swivel motors are arranged via a translatory carriage having the displacement axis (x1, x2) on a common swivel unit having the turning axis (k), which can swivel about the turning axis (k) between a position A1 in the region of the workpiece changer and a position A2 in the region of the machining station.

15. (Previously Presented) The device according to Claim 14, wherein the respective translatory carriage can move via a circulating ball spindle in the direction of the translatory axis and the circulating ball spindle is driven via a toothed belt, while both translatory carriages have a common or a separate guide rail.

16. (Previously Presented) The device according to Claim 1, wherein the spindle drive is configured as a continuous direct drive.

17. (Previously Presented) The device according to Claim 14, wherein the swivel unit is configured as a swivel plate and is driven to turn about the turning axis (k) by a swivel arm with a lift cylinder.

18. (Previously Presented) A method for operating a machining machine for lenses, comprising the steps of:

utilizing a machining machine comprising: a first and a second workpiece drive each configured as a transport receptacle and each having a workpiece spindle, a workplace changer for changing work pieces between the workpiece drives and a workpiece stock, and a machining station for machining a workpiece, wherein

a) the first workpiece spindle of the workpiece drive rotates about an axis of rotation (c1),

b) the first workpiece drive swivels about a first swivel axis (b1) arranged at a right angle to the axis of rotation (c1),

c) the first workpiece drive turns about a turning axis (k) arranged at a right angle to the first swivel axis (b1,

d) the second workpiece spindle turns about an axis of rotation (c2),

e) the second workpiece drive swivels about a second swivel axis (b2) arranged at a right angle to the axis of rotation (c2), and

f) both workpiece drives can turn together about the turning axis (k),

wherein the workpiece drives have a common translatory lifting axis (w), arranged in parallel with the turning axis (k), being mounted and driven to move along the lifting axis (w), and wherein at least the lifting motion in the direction of the lifting axis (w) and the swivel motion about the turning axis (k) occurs in common for both workpiece drives.

19. (Previously Presented) The method for operating a machining machine according to Claim 18, wherein the individual motion sequence of the two swivel axes (b1, b2) and two displacement axes (x1, x2) is attuned while machining the lenses, so as to avoid a collision of the spindles.

20. (Previously Presented) A method for operating a machining machine for lenses, comprising the steps of:

utilizing a machining machine comprising: a first and a second workpiece drive each configured as a transport receptacle and each having a workpiece spindle; a workpiece changer for changing work pieces between the workpiece drives and a workpiece stock; and a machining station for machining a workpiece, wherein:

a) the first workpiece spindle of the workpiece drive rotates about an axis of rotation (c1),

b) the first workpiece drive swivels about a first swivel axis (b1) arranged at a right angle to the axis of rotation (c1),

c) the first workpiece drive turns about a turning axis (k) arranged at a right angle to the first swivel axis (b1),

d) the second workpiece spindle turns about an axis of rotation (c2),

e) the second workpiece drive swivels about a second swivel axis (b2) arranged at a right angle to the axis of rotation (c2), and

f) both workpiece drives can turn together about the turning axis (k),

wherein the machining station is configured as a polishing station and has at least two polishing plates, each of which are driven and guided to turn about a polishing axis (p1, p2) and move in a direction of a translatory telescopic axis (z1, z2), arranged in parallel with the polishing axis (p1, p2), wherein the polishing plates are each coordinated with a tool changer or a common tool changer, having at least one tool magazine for polishing tools, and

a) the tool magazine is detached for removal from the machining machine and kept outside in liquid for wetting; and

b) the tool magazine is installed in the machine and fastened with regard to a definite position.

(Previously Presented) The device according to claim 1, wherein both workpiece drives are driven in translatory motion and can each move in the direction of a translatory axis of displacement (x1, x2), arranged at right angles to the first swivel axis (b1, b2).